ARMOR WITH ROLLERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to an armor with rollers enabling a user to move in all positions by rolling on a hard and smooth surface.

2. Description of Related Art

Over the last few years we have witnessed a rapid development of sports involving "sliding" such as snow surfing, skateboarding, acrobatic skiing, windsurfing etc. all derived from conventional skiing or ice or roller skating. These new activities which are meeting with increasing success, notably with a young audience eager for thrills, are based on the search for high speed associated with an instantaneous balance by means of quick movements having the consequence of continually shifting the center of gravity of the body.

When a person performs these activities, he takes advantage of an energy potential arising from rolling or sliding on water, snow or ground, either sloping or not, or from the air or waves, while in the vast majority of cases being able to use his feet only for support.

SUMMARY OF THE INVENTION

The object of the present invention is to propose a new sport involving skill and speed in which the user can move at high speed by rolling on the ground and/or any hard and smooth surface in all positions while constantly varying his bearing points.

To achieve this, the invention relates to an armor with rollers enabling movement on a hard and smooth surface, characterized in that it is comprised of an assembly of rigid holding parts fitted with rollers designed to be fixed to the members and/or trunk of the user.

It should be noted that these holding parts in fact have a dual purpose consisting on the one hand in enabling the rollers to be fitted and on the other hand in providing protection of the user's body and members.

These different holding parts must be made of a sufficiently rigid material such as, for example, a moulded thermohardening resin. It is naturally necessary to equip these parts with articulations and closing elements enabling the user to "get into them" and fix them to his body; these articulations and these parts can be of any nature without departing from the scope of the invention.

For the armor with rollers according to the invention to be of a nature to give satisfaction, it is in addition necessary to design the protective parts in such a way that they can form a block with the user's trunk or members and to provide them with a sufficient number of rollers to enable the user to move in all positions and in all directions by rolling.

According to a preferred feature of the invention, the set of holding parts comprises:

- a pair of gauntlets extending up to the user's arm and equipped with rollers on the one hand at their external end situated beyond the hand and on the other hand at the level of the elbow joint,
- a pair of leg-pads equipped with rollers at the level of the knee joint and,
- a pair of shoes fitted with roller skates.

The rollers situated at the level of the knee and elbow joints are preferably grouped in pairs and fitted around a common rotation axis so as to provide a sufficiently stable support.

To leave the user sufficient freedom of movement, the gauntlets must naturally be articulated at the elbow. It is also advantageous for them to be provided with an opening for gripping at the level of the hand to enable the user to grasp objects.

The leg-pads are for their part preferably articulated on the shoes on which the roller skates are fitted which skates can be of conventional or in-line type. It may also prove advantageous to provide complementary rollers at the front part of the shoes at the level of the user's toes and/or at the rear part of the shoes at the level of the heel.

These complementary rollers can naturally be single or grouped in pairs.

On account of the above-mentioned configuration, the user having put on the armor with rollers according to the invention, can start his run standing up as on roller skates, then kneel down placing one knee on the ground followed by his hands, then both knees, and move in this position before getting up by performing the reverse movements.

According to another preferred feature of the invention, the set of holding parts comprises a jacket extending down to the user's pelvis, the front of which jacket is equipped with at least three rollers mounted loose; as an example, two rollers can be fitted respectively situated at the level of the shoulders and one roller situated at the level of the pelvic region.

Due to the presence of these complementary rollers, starting from the position in which he is on all fours supported by his knees, elbows, feet and hands, the user can lie down fully supine continuing to roll while guiding his movement with his arms; to slow down in this position, he can move his arms to the "snow-plough position", that is to say open his elbows out and press down on them and close up his forearms so as to bring his hands together.

The armor with rollers according to the invention can also enable a user to move by rolling lying on his back.

For this purpose, the back part of the jacket is also equipped with at least three rollers mounted loose; as an example, two rollers can be provided situated respectively at the level of the shoulders and one roller situated at the level of the lumbar region.

Experience has shown that it is preferable to equip this back part with four rollers, i.e. two at the level of the shoulders and two at the level of the lumbar region.

These "dorsal" rollers can advantageously cooperate, according to another feature of the invention, with two buttock support rollers fitted preferably affixed to the bottom part of the dorsal part of the jacket in order to enable the user to raise himself into the seated position.

Thus, from the kneeling position, the user can get onto his back by moving his arms backwards while keeping contact with the ground in order to hold his chest up before rocking on his feet to the seated position and thence to the rear. From this position, he can get up by performing the reverse movement, i.e. sitting down, kneeling, standing up.

According to another feature of the invention, the rollers equipping the front and/or back part of the jacket are located on an abdominal frame and/or on a dorsal frame fitted on the jacket by means of a flexible tie.

It has been proved that the presence of the flexible tie between the frame or frames and the jacket is of a nature to enable the trunk to keep its flexibility in all positions, and to subsequently guarantee optimum freedom of movement for the user.

It should be noted that the user equipped with the armor with rollers according to the invention can, for his movement, use not only horizontal or sloping surfaces, but